Specification Amendments

With reference to the paragraph commencing at page 3, line 22 (of the Substitute Specification submitted herewith), please substitute the following amended paragraph:

Applicant has also addressed some of the PCM problems in his pending U.S. Patent Application Serial No. ~~08/183,199~~08/811,106, now U.S Patent No. ~~5,709,915~~5,709,914, the disclosure and contents of which are incorporated herein as if more fully set forth. Such application addresses the need for an improved recyclable endothermic/exothermic thermal storage method for use in many commercial and civilian applications, particularly for food, home and commercial packaging operations. In this application, improved CFEMs are disclosed, capable of being employed in a variety of commercial applications such as in the food industry where a need has arisen for heat retaining or heat insulating containers, packages and thermal storage devices.

A2

With reference to the paragraph commencing at page 4, line 1 (of the Substitute Specification submitted herewith), please substitute the following amended paragraph:

However, the active agents suggested in Applicant's pending U.S. Patent Application Serial No. ~~08/183,199~~08/811,106, now U.S. Patent No. 5,709,914 are not useful in the present inventive heat absorbing devices, as they are concomitantly both endotherms and exotherms. i.e. first, they absorb heat and then they give off heat to the item in connection with which they are being used, for the purpose of maintaining it warm.

A3

With reference to the paragraph commencing at page 4, line 15 (of the Substitute Specification submitted herewith), please substitute the following amended paragraph:

Another problem with the active agents of Applicant's, U.S. pending Patent Application Serial No. ~~08/183,199~~08/811,106, now U.S. Patent No. 5,709,914 and the

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prior art PCMs is that they are not capable of absorbing more than 200 cal/gm. Thus, they can remove heat for only a short period of time relative to mass and only at temperatures not exceeding 326° F. Consequently, they are not effective for applications requiring cooling at very high temperatures and for long periods of time as would be needed, for example, in airplane and railroad crash recorders, missile electronics, spacecraft devices, power supplies, data recorders employed as aircraft and railroad components and combat devices, and in commercial uses such as oven sensors, fire walls, nuclear reactors, munitions' boxes, chemical containers, batteries and automobile exhaust systems.

Please add the following paragraphs immediately after the paragraph that concludes at page 7, line 3, but before the subheading "DETAILED DESCRIPTION," of the Substitute Specification submitted herewith:

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is an illustrative schematic graph of the four phrases of the heat absorption exhibited by Lithium Hydroxide and the phenomena observed during such phases, when Lithium Hydroxide is used as an endotherm, in accordance with the present invention;

FIG. 2 is an illustrative schematic graph of the four phases of the heat absorption exhibited by Sodium Hydroxide and the phenomena observed during such phases, when Sodium Hydroxide is used as an endotherm, in accordance with the present invention;

FIG. 3 is an illustrative schematic graph of at least two phases of the heat absorption exhibited by Aluminum Hydroxide and the phenomena observed

during such phases, when Aluminum Hydroxide is used as an endotherm, in accordance with the present invention;

FIG. 4 is an illustrative schematic graph of at least two phases of the heat absorption exhibited by Calcium Carbonate and the phenomena observed during such phases, when Calcium Carbonate is used as an endotherm, in accordance with the present invention;

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FIG. 5 and FIG. 6 are graphs showing the natural delay in temperature rise for Lithium Formate and Lithium Acetate thermal decomposition reactions;

FIG. 7 and FIG. 8 are graphs showing the natural rise in temperature of conventional beryllium or wax heat sink when used with a flight data recorder, as compared to the same flight date recorder's thermal performance with a boric acid heat absorbing shield formed in accordance with the present invention; and

FIG. 9 is a graph showing the use of a hydrated salt, i.e., Magnesium Sulfate Heptahydrate, in accordance with the present invention.

With reference to the paragraph commencing at page 24, line 27 (of the Substitute Specification submitted herewith), please substitute the following amended paragraph:

In a preferred embodiment, however, of the heat absorbing device designed to protect from external heat, said device is placed adjacent ~~tot he~~to the heat sensitive device; thereafter insulation is wrapped or surrounded about the device and heat absorber and the entire package may be placed in a housing.

A6

After the conclusion of the claims at page 30 of the Substitute Specification submitted herewith, please add the following Abstract: